S/133/62/000/006/009/015
A054/A127

AUTHORS: Muzalevskiy, G. G., Grishkov, A. I.

TITLE: At the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I. P. Bardina (Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin)

PERIODICAL: Stal', no. 6, 1962, 541 - 542

TEXT: The metal pressure on the rolls and the torques on the upper and lower spindles of the 1100 blooming mill were investigated by means of wire converters fixed to the supports of the stand and spindle bodies. A current collector designed by the TsNIIChM recorded for a considerable period the torques on both blooming spindles simultaneously. The oscillographic records were made during the rolling of 144 ingots of 19 steel grades. For some of the grades the following results were obtained:

Card 1/2

At the Tsentral'nyy... S/133/62/000/004/009/015
A054/A127

Steel grade	Rail steel	Carbon steel	35 G C (35GS)	60 C 2 (60S2)	1 X 18 H 9 T (1Kh18N9T)	Double-layer	3[illegible] (EI[illegible])	[illegible]
Metal pressure on the rolls, t	500-1050	610-1290	600-1200	800-1380	500-1760	790-1730	-	-
Total rolling moment, tm	97-177	110-235	102-195	100-192	-	77-188	74-147	80-262

The ratio between the rolling moment of the lower and upper rolls varies within a wide range. For rail steel and Ст.3кп (St.3kp) blooms the ratio of moments on the barrel is 3 in the first 4 - 6 passes, from the fifth pass for the St.3kp blooms and the seventh pass for rail steel in the grooves, it varies between 1.25 and 1.75. The maximum variations in the moment ratios (up to 5) are obtained in rolling EI171 and double layer slabs. In some cases the rolling moment on the upper roll was zero or negative; sometimes it was less on the lower roll than on the upper. By recording the torques simultaneously on the upper and lower spindles, the pattern of metal pressure on the rolls could be ascertained. Tests were also carried out regarding the operation of the main motor and auxiliary equipment, supplying data of motor load, rolling cycles, times of breaks, etc.

Card 2/2

MUZALEVSKIY, O.G.

Distribution of the speed of deformation in the reduction zone during rolling. Stal' 22 no.7:628-632 Jl '62. (MIRA 15:7)
(Rolling (Metalwork))
(Deformations (Mechanics))

MUZALEVSKIY, O.G.

Principal directions and methods of investigation in establishing the technological parameters for the automation of rolling mills. [Sbor. trud.] TSNIICHM no.29:103-112 '63. (MIRA 17:4)

MUZALEVSKIY, O.G.; RIVKIN, A.A.

Searching for the optimal operating conditions of the 80[illegible] rail and structural steel mill. [Sbor. trud.] TSNIICHM no.29:128-137 '63. (MIRA 17:4)

MUZALEVSKIY, O.G., kand.tekhn.nauk

Correlation between longitudinal height and transverse deformations in the reduction zone during rolling. Stal' 24 no.7:624-628 Jl '64. (MIRA 18:1)

MUZALEVSKIY, O.G., kand.tekhn.nauk; [illegible], A.A., inzh.

Developing technological parameters for the automation of three-high rail and structural steel rolling mills. Stal' 23 no. 3:238-245 Mr '64. (MIRA 17:5)

GROSVAL'D, V.G.; [illegible], V.A.; [illegible]; [illegible]; MONAKHOVA, V.I.; [illegible]; [illegible]

New developments [illegible]

MUZALEVSKIY, O.G., kand. tekhn. nauk; BUTSEV, V.V., inzh.

Effect of roll stoppage on the distribution of metal deformation in the zone of reduction during rolling. Stal' 25 no.9:828-830 S '65. (MIRA 18:9)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

NOVIKOV, V.; MATVEYEV, Yu.M.; ROZHINSKIY, M.B.; BATIST, A.I.; IOSNEL', G.; KOROLEV, M.; IVANITSKIY, V.; ARONOV, I.; SVETLAKOV, V.; ZAYONCHIK, L.Z.; RASPOPOV, I.V.; SERDYUKOV, G.V.; GRISHKOV, A.I.; MAKEYEV, I.F.; DELLO, A.A.; SHUMNAYA, V.A., inzh.; SPIRYAGIN, L.P., inzh.; GRISHKOV, A.I.; KARDONOV, B.A.; BURDIN, V.M., kand. tekhn. nauk; MOLGACHEV, D.A., inzh.; MUZALEVSKIY, O.G.; RIVKIN, A.A.; KEYS, N.V.; KOMISSAROV, A.I.

New developments in research. Stal' 25 no.8:842-845 S '65.
(MIRA 18:9)

L 38913-66 EWT(d)/EWT(m)/EWP(v)/EWP(t)/ETI/EWP(k)/EWT(h)/EWP(l) IJP(c) JD/HW (N)

ACC NR: AP6017639 SOURCE CODE: UR/0133/66/000/001/0050/0055

AUTHOR: Dobronravov, D. N.; Lyambakh, R. V.; Stupnikov, E. G.; Shishkinskiy, V. I.; Burdin, V. M.; Muzalevskiy, O. G.; Yevdokimov, A. S.; Yegorov, Ye. P.; Leont'yev, S. A.; Shesterkin, A. G.; Khusid, S. Ye.

ORG: Central Automation Laboratory (Tsentral'naya laboratoriya avtomatiki); TsNIIChM; Magnitogorsk Metallurgurical Combine (Magnitogorskiy metallurgicheskiy kombinat)

TITLE: Experimental operation of an automatic system for controlling strip thickness on the 2500 continuous sheet mill

SOURCE: Stal', no. 1, 1966, 50-55

TOPIC TAGS: hot rolling, automatic control equipment, steel

ABSTRACT: An automatic control system was developed for regulating the thickness of steel strip, consisting of regulators of the gaps between the work rolls, and of a system stabilizing the tension of the strip between the stands. The automatic control system yielded satisfactory performance data on the 2500 continuous hot-rolling mill, and for the majority of the strip profiles studied, decreased the longitudinal variation in thickness and maintained a more accurate nominal strip thickness than had been possible before. In the presence of the automatic control system, the strips are rolled with deviations of no more than ±0.05 mm (with the exception of

Card 1/2 UDC: 621.771.23:65.011.56

L 38913-66

ACC NR: AP6017639

short rear portions of the strip, where the positive deviation reaches 0.1-0.15 mm). Without the automatic control system, the length of the strip ends thickened by 0.3-0.2 mm reaches 50-100 m. The decrease in the length of thickened portions of the strip and a more accurate control of nominal strip thickness result in a 1.5% average increase in strip length. Orig. art. has: 6 figures and 2 tables.

SUB CODE: 11,13/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001

Card 2/2

06260

6(4) SOV/107-59-6-24/50

AUTHOR: Muzalevskiy, S. (Pavlodar)

TITLE: Station UL7FA Operating

PERIODICAL: Radio, 1959, Nr 6, pp 21-22 (USSR)

ABSTRACT: The author tells of Andrey Mikhelev's activities in operating his amateur radio station UL7FA in Pavlodar. Within two years, Mikhelev established telegraph communication with 125 oblast's of the USSR and 160 territories of the world, and telephone communication with 70 USSR oblast's and 80 countries.

Card 1/1

MUZALEVSKIY, V.I.

Automatic measurement of the moisture of rotary-cut veneer in a roller dryer. Der. prom. 14 no.4:11-12 Ap '65. (MIRA 18:5)

POLEVOY, Viktor Vasil'yevich; MUZALEVSKIY, Vladimir Vasil'yevich; RAPPOPORT, P.I., otv.red.; D'YAKOVA, G.B., red.izd-va; NADEINSKAYA, A.A., tekhn.red.; PROZOROVSKAYA, V.L., tekhn.red.

[Standard equipment for mine hoists; a handbook] Tipovoe oborudovanie shakhtnogo pod"yema; spravochnik. Moskva, Ugletekhizdat, 1959. 270 p. (MIRA 12:6)
(Mine hoisting--Equipment and supplies)

S/181/62/004/005/010/055
B102/B138

9.4177
24,2600

AUTHORS: Konozenko, I. D., Muzalevskiy, Ye. A., and Shakhovtsova, S.I.

TITLE: Investigation of the generation of electrical pulses by CdSe single crystals at liquid-nitrogen temperature

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1132-1134

TEXT: It was found that CdSe single crystals to which a constant voltage of about 200 v is applied generate current pulses at nitrogen temperature. The frequency of these pulses is between 1 and 0.001 cps and depends on the illumination intensity. The sizes of the crystals used were 2·2·4, 2·3·4, and 1·2·3 mm^3. They were illuminated with monochromatic light with an ИКС-12 (IKS-12) infrared spectrometer. The photocurrent was recorded with ЭПП-М1 (EPP-M1) and Н-3732 (N-3732) recorders. The pulses were observed with an ЭНО-1 (ENO-1) oscillograph and photographed with a loop oscillograph. Before the measurements the samples were kept in the dark for 15-30 min, then light was switched on and the applied voltage was raised slowly. The frequency ν of the observed current pulses was found to increase almost linearly with the intensity of the illumination. The

Card 1/2

curve $\gamma(V)$ has a "shallow" minimum at $\sim$300 v. When the sign of the voltage was altered, the shape, the amplitude and the frequency of the current pulses changed as shown in Fig. 5. The pulse generation could be damped and even suppressed by additional infrared illumination ($\lambda \approx 1\mu$). When the temperature of the sample was raised the pulse amplitudes became lower and the durations longer. The effect of pulse generation was observed whether the contacts were ohmic or not. There are 5 figures.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics of the AS UkrSSR, Kiyev)

SUBMITTED: December 11, 1961

Legend to Fig. 5: (1) V direct, (2) V back.

Card 2/3

24.5600
9.4300

S/185/62/007/003/015/015
D299/D301

AUTHORS: Kononzenko, I.D., Muzalevs'kyy, Ye.A. and Shakhovtsova, S.I.

TITLE: Crystal generator of infra-low frequency pulses

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 3, 1962, 338

TEXT: In studying the photoelectric properties of CdSe single crystals at liquid-nitrogen temperature, the authors observed that a photocurrent was generated by these crystals. First investigations showed that the observed effect differed considerably from that observed by Ye.A. Sal'kov and H.A. Fedorus (Ref.1: Fotoelektricheskiye i opticheskiye yavleniya v poluprovodnikakh, Kiyev, Izd-vo AS UkrSSR, 1959). It could be of great practical value. It was established that the frequency of the current pulses depend on the intensity L of illumination of the crystal, varying between 1 and 0.001 cycles. The generation of the photocurrent may stop if a voltage below 160 volts is applied, or if the intensity of illumination is high. The maximum

Card 1/2

S/165/62/007/003/015/015
D299/D301

Crystal generator of infra-low ...

current-intensity is 0.1 amp., at a voltage of 170-200 volts. The high stability of the frequency of pulse generation at constant illumination, the fairly high current-amplitude, and the possibility of fixing the frequency according to the intensity of illumination, permit development of a crystal generator of infra-low frequency pulses. Such a generator, operating at low temperatures, could be widely used in modern low-temperature techniques. Its use as a photon counter is not excluded. There are 1 figure and 1 Soviet-bloc reference.

ASSOCIATION: Instytut fizyky AN URSR (Institute of Physics of the AS Ukr RSR), Kyyiv

SUBMITTED: December 1, 1961

[Abstractor's note: Complete translation.]

Card 2/2

L 23940-65 EWT(m)/EWP(b)/T/EWP(t) IJP(c) JD
ACCESSION NR: AP5003449 S/0181/65/007/001/0278/0279

AUTHOR: Shakhovtsova, S. I.; Konozenko, I. D.; Muzalevskiy, Ye. A.

TITLE: On the generation of current pulses by CdS single crystals

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 278-279

TOPIC TAGS: cadmium sulfide, photoelectric effect, photoelectricity, electric pulse

ABSTRACT: Samples of cadmium sulfide single crystals were shown to generate current pulses if exposed briefly to monochromatic or white light or to gamma radiation. The phenomenon was observed at temperatures of 330—270K (for some samples down to 77.3K), and the range of frequencies generated was from 0.2 to 0.05 cycles per second. The voltages measured on the samples corresponded to certain intervals of the illumination intensity. A sufficiently strong complementary illumination caused the phenomenon to disappear. The experiments were a followup to earlier experiments (I. D. Konozenko, Ye. A. Muzalevskiy, S. I. Shakhovtsova, FTT, 4, 1133, 1962; V. L. Vinetskiy, I. D. Konozenko, S. I. Shakhovtsova, FTT, 5, 2698, 1963), in which

Card 1/2

L 23940-65
ACCESSION NR: AP5003449

the generation of similar pulses was observed in cadmium selenide.
Orig. art. has: 2 figures.
[ZL]

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics, AN UkrSSR)

SUBMITTED: 23Jul64 ENCL: 00 SUB CODE: SS

NO REF SOV: 003 OTHER: 000 ATD PRESS: 3176

Card 2/2

L 18433-66 EWT(1)/T IJP(c) GG

ACC NR: AP6007796 SOURCE CODE: UR/0185/66/011/002/0171/0176

AUTHOR: Konozenko, I. D.; Muzalevs'kyy, Ye. O.—Muzalevskiy, Ye. O.; Rovna, A. I.—Rovnaya, A. I.; Galushka, O. P.—Galushka, A. P.; Shmatko, H. H.—Shmatko, G. G.; Nikolayeva, L. H.—Nikolayeva, L. G.

ORG: Institute of Physics, AN URSR, Kiev (Instytut fizyky AN URSR)

TITLE: Preparation of single CdS crystals and their structural and physical properties

SOURCE: Ukrayins'skyy fizychnyy zhurnal, v. 11, no. 2, 1966, 171-176

TOPIC TAGS: single crystal, crystal lattice, crystal property, x ray analysis, photoconductivity, crystal lattice defect

ABSTRACT: A procedure for obtaining large single crystals of CdS by the zone sublimation method is described. X-ray investigations of the defects in the structure of these crystals were carried out. It was shown that they are more perfect than those previously obtained (I. D. Konozenko, V. I. Ust'yanov, same source, v. 5, no. 5, 1960). The electrophysical properties were analyzed and the existence of a wide photoconductivity maximum was found. The depth of bedding and of trapping level concentrations were determined. On the basis of these investigations, it is possible to obtain purer single crystals of the A_2B_6 type compounds with an improved lattice by perfecting the technology. Orig. art. has: 6 figures. [Based on author's abstract.]

Card 1/2

L 18433-66

ACC NR: AP6007796

SUB CODE: 20 SUBM DATE: 14Mar65/ ORIG REF: 004/ OTH REF: 006/

FW

Card 2/2

BRZOZOWSKI, Zdzislaw; JACKIEWICZ, Alodia; MUZALEWSKI, Feliks; STEFANSKI, Tadeusz; SZCZEPKOWSKA, Teresa

The obtaining of 3-sulfanilamido-6-methoxypyridazine. Rocz chemii 34 no.1:299-301 '60. (EEAI 10:9)

1. Laboratorium Badawcze Starogardzkich Zakl. Farmaceutycznych, Starogard Gdanski.

(Methoxypyridazinylsulfanilamide)

POLAND

MUZALEWSKI, Feliks

Dept. of Organic Chemistry, Higher Normal School (Katedra Chemii Organicznej Wyzszej Szkoly Pedagogicznej), Gdansk

Wroclaw, Wiadomosci chemiczne, No 2, February 1966, pp 128-131

"On the reactivity of the amino group of sulfanilamides."
(doctoral thesis)

Muzal'kov, M.I.

127-58-6-19/25

AUTHOR: Muzal'kov, M.I., Chief Mining Surveyor of the Sadon Administration of Mines

TITLE: The Geodetic Basis for the Sinking of Mine Shafts by Opposite Ends (Geodezicheskoye obosnovaniye prokhodki shakhtnykh stvolov vstrechnymi zaboyami)

PERIODICAL: Gornyy Zhurnal, 1958, Nr 6, pp 68-73 (USSR)

ABSTRACT: The author describes the use of geodetic instruments and calculations to help the sinking of shafts by opposite ends with an admissible error of 1 : 300,000. Both ends of the shaft met with no error. He finds that the excellent results achieved in different cases of shaft-sinking with the application of geodetic methods, entirely compensated for the loss of time involved in the preliminary geodetic work.
There are 7 figures and 1 table.

ASSOCIATION: Sadonskoye rudoupravleniye (Sadon Administration of Mines)

AVAILABLE: Library of Congress

Card 1/1 1. Geology 2. Shafts-Instrumentation

SOV/127-59-4-5/27

18

AUTHORS: Kabisov, Kh.G. and Muzal'kov, M.I., Mining Engineers

TITLE: The Stoping of Protecting Blocks in the Mines. (Otrabotka shakhtnykh okhrannykh tselikov.)

PERIODICAL: Gornyy zhurnal, 1959, Nr 4, pp 32-35 (USSR)

ABSTRACT: The losses of ore left in the protecting blocks cut down the production figures of mines. On the other hand the eventual extraction of ore from these blocks involved large expenses and extensive preparatory operations. The authors proposed a new method consisting of the gradual replacement of the natural protecting block by an artificial one. The method was tried out at the Zgid polymetallic mine of the Sadon Mining Management, and was found to be reliable, comparatively inexpensive and secure. In this particular case, it was found that after the sinking of the main

Card 1/2

The Stoping of Protecting Blocks in the Mines.

shaft, the vein formed a part of the protecting block. The method consisted in extracting horizontal layers and gradually filling in the empty space with rocks, and pouring a concrete mixture over them. (Figure 3). The method is described in detail. Such replacement of only one block gave an economy of 800,000 rubles without counting the value of the extracted ore. There are 2 sets of diagrams and 1 profile.

ASSOCIATION: Sadonskoye rudoupravleniye. (The Sadon Mining Management).

MUZAL'KOV, M.I.

Surface shifting in mining steeply dipping veins. Gor. zhur. no.4:67-70 Ap '60. (MIRA 14:6)

1. Glavnyy marksheyder Sadonskogo rudoupravleniya.
(Mining geology)
(Subsidences (Earth movements)

MUZAL'KOV, M.I.; KULYASHOV, F.M.; LUGANSKIY, Ye.A.

Underground parallactic traverse measurements with a permanent base rod. Gor.zhur. no.9:52-55 S '60. (MIRA 13:9)

1. Zadonskoye rudoupravleniye, poselok Mizur Severo-Osetinskoy ASSR.

(Mine surveying)

MUZAL'KOV, Mikhail Ivanovich; BELYAYEV, B.I., otv. red.; SLAVOROSOV, A.Kh., red.izd-va; IL'INSKAYA, G.M., tekhn. red.

[Mine surveying operations in shaft sinking by means of workings which meet] Markscheiderskо-geodesicheskie raboty pri prokhodke i uglubke shakhtnykh stvolov vstrechnymi zaboiami. Moskva, Gosgortekhizdat, 1963. 186 p. (MIRA 16:6)
(Mine surveying) (Shaft sinking)

SINDAROVSKIY, M.S.; SHPITAL'NIKOV, A.G., kand. ekonom. nauk; MUZAL'KOV, M.I.

Quality of nonferrous metal ores and the profitableness of production (discussion of the article by B.F. Novozhilov). Gor. zhur. no.10:17-22 O '63. (MIRA 16:11)

1. Glavnyy inzh. Gosudarstvennogo instituta proyektirovaniya predpriyatiy promyshlennosti tsvetnykh metallov (for Sindarovskiy). 2. Glavnyy ekonomist Gosudarstvennogo instituta proyektirovaniya predpriyatiy promyshlennosti tsvetnykh metallov (for Shpital'nikov). 3. Glavnyy marksheyder Sadonskogo rudoupravleniya (for Muzal'kov).

BUTIN, V.I., inshener; MUZAL'KOV, S.S., inshener.

New design of an induction oil heater. Elek.sta. 24 no.10:57 O '53.
(MLRA 6:10)
(Induction heating)

MUZAVOVA, N.I., aspirant

Roentgenological image of the isthmus and cervix uteri in sterile women. Ped. Akush. i gin. 24 no.6:40-42 '62. (MIRA 17:4)

1. Otdeleniye neoperativnoy ginekologii (zav. - prof. Ye.P. Mayzel' [IE.P. Maizel']) Instituta akusherstva i ginekologii AMN SSSR (direktor - prof. M.A. Petrov-Maslakov).

MUZDEKA, Gojko (Eng.)

"Problem of the highest temperature in the regulations for construction of overhead lines"

SO: ELEKTROPRIVREDA, May - June 1955

MUZDEKA, G.

Economic den ity of electric current in overhead lines. p. 1

ELEKTROPRIVREDA. Beograd, Vol. 9, No. 1, Jan. 1956

SO: EEAL, Vol. 5, No. 7 July 1956

KOVAC, Bela, dipl. tehn., saradnik (Beograd, Vjekoslava Kovača 8); [illegible]ZDERKA, Slobodan, inz., saradnik; SOBAJIC, Miodrag, inz., saradnik

Geiger-Müller counters as switching elements in the coincidence and anticoincidence circuits. Tehnika Jug 19 no.6: Supplement: Radioizotopi zrac 3 no.6:1015-1016 Je '64.

L 04136-67
ACC NR: AP6020193 (A) SOURCE CODE: YU/0009/65/000/006/0581/0591

30
B

AUTHOR: Muzdeka, Svetolik (Colonel)

ORG: none

TITLE: Special features of the organization of nuclear actions

SOURCE: Vazduhoplovni glasnik, no. 6, 1965, 581-591

TOPIC TAGS: nuclear warfare, nuclear weapon delivery, air force organization, tactical warfare

ABSTRACT: The author discusses the general characteristic features of the organization of nuclear actions, general protective measures (navigational, meteorological, air defense measures, etc.), the special character of planning several simultaneous nuclear thrusts, and the organization of single nuclear strikes. It is concluded that each nuclear strike must be planned separately according to the prevailing situation. Simultaneous use of several nuclear devices requires the organization of fighting forces at the highest level of air command. Various protective measures are of paramount importance. Any nuclear mission must be carefully and continuously observed. During nuclear strikes sufficient means and forces should be kept in reserve. The choice of the location of the reserve nuclear carrier and its degree of readiness

Card 1/2

L 04136-67

ACC NR: AP6020193

depends on the number of strikes and other tactical and technological considerations. The transfer of existing nuclear carriers within the available network of airports and their protection is one of the main conditions for the safe and successful execution of nuclear strikes.

SUB CODE: 05,15/ SUBM DATE: none

Card 2/2

MUŽDEKA, S.D.

Device for measuring pulse spectra. Slobodan D. Muž-
deka (Inst. Nuclear Sci. "Boris Kidrich," [redacted] Bull. Inst. Nuclear Sci. "Boris Kidrich" (Bel-
grade) 3, No. 40, 75-81(1953); cf. C.A. 41, 538f;
48, 3153f.—EF50 and 6AK5 tubes were chosen as in-
put tubes. Automatic photographic registration was al-
tered in such a manner that an exponential, instead of a
linear, time base was applied to the horizontal plates and
exposure was made directly on the film without the aid of an
optical wedge. A 50-channel pulse analyzer was used to
compare spectra obtained by the photographic method.
(P. M. Boreli, *ibid.* No. 41, 83-93). The pulse, propor-
tional to the energy of the particle, is amplified by a linear
amplifier and is registered by a magnetic or a cathode-ray
oscillograph. The photographic film is exposed to length-
ened signal pulses, which are displayed repeatedly on the
face of a cathode-ray oscillograph. C. J. O'Brien

LL

MUZDRAKOV, G.

Muzdrakov, G. My experience in developing forest shelter belts. p.31.

Vol. 10, no. 10, Oct. 1955 KOOPERATIVNO ZEMEDELIE Sofiya, Bulgaria

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2 February, 1956

MUZDRAKOV, G. - Gorsko Stopanstvo

Experiment with trimming amorphous trees in shelter belts. p. 185
(GORSKO STOPANSTVO Vol. 11, No. 4, Apr. 1955)

SO: Monthly list of East European Accession, (EEAL), LC, Vol. 4, No. 9, Sept. 1955, Uncl.

VOLCKO, J.; MUZELAK, R.; IVAN, J.; MELICH, O., KUBA, M.; [illegible], Št.

Obstetrical surgery in maternity homes in the region of eastern Slovakia and its relation to perinatal mortality. Cesk. gynek. 29 no.6:545-549 Ag '64.

1. Gyn.-por. klin. Lek. fak. University P.J. Šafárika v Kosiciach (prednosta doc. dr. K. Poradovsky, C.Sc.).

MUZEN, PETAR

Kuzen, Petar. Sur les bases des fonctions continues. Acad. Serbe. Bull. Acad. Sci. Mat. Nat. A. no. 5, 65–70 (1939).

The author states conditions under which a sequence of functions of the form

$$\int \psi_k(\lambda)\varphi(x,\lambda)d\gamma(\lambda), \qquad k=1, 2, \cdots,$$

spans the space of continuous functions. Proofs are omitted but some examples are obtained by specialization.

R. P. Boas, Jr. (Providence, R. I.)

Source: Mathematical Reviews, Vol 11 No. 3

TAMAYEV, I.V., MUZENSKAYA, I.B., [illegible], A.D.

Chemistry, Analytic

Physico-chemical analysis of systems which are significant in analytical chemistry.
Zhur.anal.khim., 7, no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1952 ~~1953~~ Uncl.

MUZEVIC, M., inz.

Organization of serial production with regard to technical documentation.
Strojarstvo 4 no.9/10:145-148 '62.

S/101/60/000/004/003/005
A051/A129

AUTHOR: Muzeymnek, Yu. A.

TITLE: The replacement of anti-slipping roller bearings of rotating furnaces by anti-friction bearings

PERIODICAL: Tsement, no. 4, 1960, 27-28

TEXT: An outline is given of some of the theoretical foundations for the expediency of replacing anti-slipping bearings in roller-type supports of rotating furnaces by anti-friction bearings and some of the demands placed on the latter are listed. The author points out that in designing the supports of rotating furnaces the body should be regarded as a statically-undefinable multi-stand beam, which can transmit its weight to supports in quite a non-uniform manner due to various weights of a linear unit in the body. During the functioning of the furnace the weights can be redistributed on the supports. The main advantages of the anti-slipping bearings are listed as being the ability of such supports to withstand substantial overloads and a high temperature of lubrication. Anti-friction bearings would not be advisable, according to the author, if the latter are located in the

Card 1/4

The replacement of anti-slipping...

supporting roller where the load can exceed 200 - 500 tons and a radial load on each bearing of 80 - 200 t. The axial component of the load on the bearing can reach values close to that of the radial one. It is pointed out that the construction of rotating furnace supports using the anti-friction bearings is difficult to realize, unless a high supply of stability is allowed for. Two conditions must be taken into account when constructing the supports of the rotating furnaces with anti-friction bearings: 1) constant checking of the load on the support, 2) calculating the bearings for receiving both radial and axial loads, making allowance for the fact that the magnitude of the axial load can come close to that of the radial one. The author states that the load check can be carried out by tensiometric methods, using ordinary tension pickups of resistance and a proportional relationship between the tension in the walls of the body and the load on the support. It is stressed that the assembly of the resistance tension pickups should be conducted in places of the supporting body not subjected to axial loads, in order to decrease the discrepancies in measuring the values under control. It is suggested to mount two tension pickups on one arm of the bridge scheme being assembled. The calibration of the bridge scheme of the tension

The replacement of anti-slipping...

pickups can be carried out using hydro-jacks, usually applied in assembling and disassembling the supports. The author states that a check of the load on the supports would facilitate the correct functioning of the furnace and prolong the life-span of the brick lining. Galvanometers or sensitive ammeters can be used as instruments for measuring the loads periodically on the supports. If an automatic checking is necessary, the pulses of the bridge schemes of the tension pickups must be amplified after which these can be led out to the control panel of the furnace. It is pointed out that the radial component of the load will function constantly, but the greater axial component only for shorter periods of time. It is impossible to design anti-friction bearings with a large stability reserve. The double-row cone-shaped bearings would have to be made with a large contact angle, but even in this case the rows of rollers in one bearing would function with a significantly non-uniform load: one row would accept the greater part of the radial load and the entire axial load. It is suggested using combined bearings in the supports, each of which would consist of a radial and an axial bearing. A cylindrical roller bearing with short rollers could be used as the radial bearing. As the supporting bearing a thrust anti-slipping collar should be used similar to the type widely used to-day in anti-

Card 3/4

The replacement of anti-slipping...

slipping bearings. It is suggested that this type of support would be highly effective, since the duration of the action of the axial load in a correctly-regulated movement of the furnace would be only a small percent of the general time balance in the work of the support.

Card 4/4

MUZGIN, S.S.

Comparative evaluation of existing formulas for the impact efficiency of percussion machines. Izv.AN Kazakh.SSR.Ser.gor.dela,met.i stroimat. no.1:79-82 '52. (MLRA 9:8)
(Mining machinery) (Impact)

MUZGIN, S.S.

MUZGIN, S.S.

Using the DorNII impact testing machine to evaluate rock breaking strength. Trudy Inst. gor. dela AN Kazakh. SSR 1:77-82 '56.
(Rocks--Testing) (MIRA 11:1)

MUZGIN, S.S.

Ways to mechanize and automatize the operations involved in borehole drilling. Izv.AN Kazakh. SSR.Ser.gor.dela, met. i stroimat. no.11:51-63 '56. (MLRA 10:1)
(Boring machinery) (Atuomatic control)

SHARIPOV, V.Sh., MUZGIN, S.S.

Use of trackless haulage at the Dzhezkazgan Mine. Izv.AN Kazakh. SSR.Ser.gor.dela, met. i stroimat. no.11:118-122 '56.
(MLRA 10:1)

(Dzhezkazgan--Mine haulage)

MUZGIN, S.S.

SHARIPOV, V.Sh.; MUSIN, A.Ch.; MUZGIN, S.S.; LYSENKO, I.Z.; RADCHENKO, G.A.; TRET'YAKOV, A.M.

Improvements in the technology of ore mining in Dzhezkazgan. Trudy Inst. gor. dela AN Kazakh. SSR 2:24-43 '57. (MIRA 10:12)
(Dzhezkazgan--Mining engineering)

MUZGIN, S.S.; ARTAMONOVSKIY, O.Yu.

Loading equipment for the Dzhezkazgan mine. Izv. AN Kazakh. SSR. Ser. gor. dela, met., stroi. i stroimat. no.2:100-108 '57.
(Mining machinery) (Ore handling) (MLRA 10:9)

MUZGIN, S.S.

MUZGIN, S.S.

Theory of breaking frozen ground. Trudy Inst. gor. dela AN Kazakh. SSR 2:124-136 '57. (MIRA 10:12)
(Frozen ground) (Earthwork--Cold weather conditions)

AUTHOR: Muzgin, S.S. (Engineer) 100-4-9/16

TITLE: On the publication by V.A. Cherkashin, Cand.Tech.Sci., "The Working of Clay and Sand Pits During the Winter". (O broshyure Kand.Tekhn.Nauk. V.A. Cherkashina).

PERIODICAL: "Mekhanizatsiya Stroitel'stva" (Mechanisation of Construction), 1957, Vol.14, No.4, pp.23-24 (USSR).

ABSTRACT: This booklet was published by "Gosudarstvennoye Izdatel'stvo Literatury Po Stroitel'stvu I Arkhitekture" in 1955. The author discusses the chapter, "The Digging and Breaking Up of Frozen Clay and Sand by Excavators with Specially Adapted Buckets". This experimental bucket is provided with spikes to break up the material by impact which is effected by a pneumatic hammer ОМСТ-5. Investigations were carried out by A.N. Zelenin who showed that the 2-3 kg/m impact onto the spikes of the bucket is not sufficiently strong for an efficient breaking up process. Diagram No.1 shows the relation between the effective breaking up and various magnitudes of impact. The excavator was tested on light clay (14% moisture content) at a temperature of -4°C. An impact of 10 kg/m was found to be effective. But for this impact the construction of the bucket had to be strengthened. Diagram 2 illustrates the effect of the impact of

1/2

On the publication by V.A. Cherkashin, Cand.Tech.Sci., "The Working of Clay and Sand Pits During the Winter". (Cont.)
100-4-9/16

the spikes on the frozen ground, the spikes being placed at different distances (c/c). When the spikes are 15 to 20 cm apart a direct impact of 5000 to 7000 (weight behind the impact) is required to eliminate ridges between the points of direct impact. This applies to frozen clay with 18-19% of moisture worked with a bucket of 0.5 m^3 capacity. When the spacing of the spikes lies between 10 to 12 cm no ridges of frozen clay are left between the impact points.

2/2

There are 2 diagrams.

AVAILABLE:

MUZGIN, S.S.; ARTAMONOVSKIY, O.Yu.

Bulldozer for underground mining. Izv. AN Kazakh. SSR. Ser. gor dela no.2:100-105 '58. (MIRA 12:10)
(Mining engineering) (Bulldozers)

MUZGIN, S.S., kand. tekhn. nauk

Transportation machines for operating in a complex with underground excavators. Gor. zhur. no.7:41-42 Jl '64. (MIRA 17:10)

1. Institut gornogo dela AN KazSSR.

MUZGIN, S.S.

Desintegration of frozen grounds by force of impact. Trudy Inst. gor. dela AN Kazakh. SSR no.3:107-119 '58. (MIRA 11:6)
(Frozen ground)
(Mine tools)

SHARIPOV, Vakhit Sharipovich, kand.tekhn.nauk; KUNTUKOV, Yuriy Grigor'yevich, inzh.; MUZGIN, Sergey Spiridonovich, kand.tekhn.nauk; TKACHENKO, Artem Mikhaylovich; TRET'YAKOV, Aleksey Mikhaylovich, inzh.; SHCHERBAK, Georgiy Sergeyevich, inzh.; TARASOV, L.Ya., red.; PARTSEVSKIY, V.N., red.izd-va; ATTOPOVICH, M.K., tekhn.red.

[Hole drilling equipment] Karetki i agregaty dlia bureniia shpurov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1959. 134 p. (MIRA 12:4)

1. Institut gornogo dela AN KazSSR (for all except Tarasov, Partsevskiy, Attapovich).

(Boring machinery)

SOV/127-59-1-18/26

AUTHORS: Bupezhanov, M. K., Director, and Shapirov, V. Sh., and Muzgin, S. S., Candidates of Technical Sciences

TITLE: Rail-less Machines for Mining Faces in the Dzhezkazgan Mine (Bezrel'sovyye zaboynyye mashiny na Dzhezkazganskom rudnike)

PERIODICAL: Gornyy zhurnal 1959, Nr 1, pp 60-63 (USSR)

ABSTRACT: The State Scientific-Technical Committee at the Council of Ministers of the Kazakh SSR, the Karaganda State Council of the National Economy, the Institute of Mining Engineering of the AS Kazakh SSR and the Kazakh Scientific-Technical Society of Non Ferrous Metals organized a conference during 1958. The introduction of new underground technology in the Dzhezkazgan Mines was the object of special attention during this conference. The introduction of the following rail-less mining equipment was recommended: a self-propelled, 2-4 drill drilling rig; a rig for drilling blast holes of 60-70 mm diameter; a straight shovel excavator, provided with telescopic device and a 0.8 - 1.00 cu m bucket; self-propelled griper; 5-10 ton capacity trolley- and diesel

Card 1/2

Rail-less Machines for Mining Faces in the Dzhezkazgan Mine

type dump trucks; 10-20 ton capacity self-propelled cars; self-propelled scaffold for checking of the ceilings, prop assemblies. Trial operation of a mining section, furnished with the above mentioned machinery was demonstrated to the members of the conference. Technical data on the described machinery is given. There are 4 photos, 1 diagram and 2 Soviet references.

ASSOCIATION: Dzhezkazganskoye rudoupravleniye (The Dzhezkazgan Mining Management) (IGD AN Kaz SSR) (The IGD AS Kazakh SSR), Alma-Ata

MUZGIN, S.S.; BYUYRIN, A.I.

Ore loading for trackless haulage in thin sections of the Dzhezkazgan deposit. Izv. AN Kazakh. SSR. Ser. gor. dela no.1: 90-96 '59. (MIRA 12:9)

(Dzhezkazgan--Ore handling)

MUZGIN, S.S.

Engineer V.M.Fedorov's theory on rock crumbling. Izv.AN Kazakh.SSR. Ser.gor.dela no.2:78-83 '59. (MIRA 13:4)
(Rocks) (Mining engineering)

S/123/61/000/020/033/035
A004/A101

AUTHORS: Muzgin, S. S., Artamonovskiy, O. Yu.

TITLE: On an expedient type of underground bulldozer

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 20, 1961, 4, abstract 20Ts38 ("Izv. AN KazSSR. Ser. gorn. dela", 1960, no. 1 [12], 59-64, Kazakh summary)

TEXT: The authors describe the БП-1 (BP-1) underground bulldozer (for road levelling, cleaning the floor of mine workings, etc.) with hydraulic frame, developed by the Institute of Mining, AS KazSSR, and the Chelyabinskiy zavod dorozhnykh mashin im. Kolyushchenko (Chelyabinsk Plant of Road Machinery) on the base of the С-100 ГП (S-100 GP) tractor. The BP-1 bulldozer can be powered either by a diesel engine or an electromotor. Bulldozers with diesel drive should be equipped with a scrubber of the catalytic type or a scrubber for the wet cleaning of exhaust gas. For operation in dead faces an electric drive is necessary. The weight of the bulldozer with tractor amounts to 14 tons, the length is 5,450 mm, width - 3,250 mm, height - 3,120 mm; power of diesel engine

Card 1/2

S/123/61/000/020/033/035
A004/A101

On an expedient type of underground bulldozer

- 90 HP, electric drive - 55 kw. It is pointed out that for the haulage of ore, the БП -2 (BP-2) bulldozer has been designed with a horsehoe moldboard. For small-scale work the BP-1 bulldozer can be fitted with a moldboard of the BP-2 type.

I. Faybisovich

[Abstracter's note: Complete translation]

Card 2/2

SHARIPOV, V.Sh., kand.tekhn.nauk; MUZGIN, S.S., kand.tekhn.nauk; BUPEZHANOV, M.K.

Experimental use of trackless, self-propelled machinery in the Szhezkazgan Mine. Gor.zhur. no.3:41-44 Mr '60. (MIRA 14:5)

1. Institut gornogo dela AN KazSSR (for Sharipov, Muzgin).
2. Direktor Dzhezkazganskogo rudouprovleniya (for Bupezhanov)
(Dzhezkazgan region--Mining machinery)

MUZGIN, S.S.; ARTAMONOVSKIY, O.Yu.

Trailing cable reeling device on self-propelled mining machines.
Trudy Inst. gor. dela AN Kazakh.SSR 4:115-125 '60.
(MIRA 13:9)
(Mining machinery--Electric driving)

MUZGIN, S. S.

Self-propelled machines for the delivery of lumpy ore. Trudy Inst. gor. dela AN Kazakh. SSR 5:119-131 '60.
(MIRA 13:8)
(Mine haulage--Equipment and supplies)
(Ore handling)

MUZGIN, S.S.

Excavator loading at the Dzhezkazgan mines. Trudy Inst. gor. dela AN kazakh. SSR 7:110-121 '60. (MIRA 14:6)
(Dzhezkazgan region--Ore handling)
(Excavating machinery)

SHARIPOV, Vakhit Sharipovich; MUZGIN, Sergey Spiridonovich; BUPEZHANOV, Mukhit Kuldzhanovich; TKACHENKO, Artem Mikhaylovich; ARTAMONOVSKIY, Oleg Yur'yevich; KULAKOV, Arkadiy Yakovlevich. Prinimali uchastiye: KAZYBEKOV, D.M.; IBRAYEV, Sh.I.; ISTOMIN, S.N., otv.red.; GEYMAN, L.M., red.izd-va; SIPYAGINA, Z.A., red.izd-va; SAL'TSOVSKIY, M.S., red.izd-va; MAKSIMOVA, V.V., tekhn. red.

[Self-propelled machines for underground workings of ore deposits] Samokhodnye mashiny dlia podzemnoi razrabotki rudnykh mestorozhdenii. By V.Sh.Sharipov i dr. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 258 p. (MIRA 14:12)

(Mining machinery)

KOZLO, V.K.; MUZGIN, S.S.

Choice of a drive for an underground excavator. Izv. AN Kazakh. SSR. Ser. gor. dela no.1 54-63 61. (MIRA 15:2)
(Excavating machinery)

BYUYRIN, A.I.; MUZGIN, S.S.

Effect of oversized pieces of ore on the productivity of an excavator in underground mining. Trudy Inst.gor.dela AN Kazakh. SSR 8:87-91 '61. (MIRA 15:4)

(Excavating machinery)

ARTAMONOVSKIY, O.Yu., inzh.; MUZGIN, S.S., inzh.

Bulldozer's moldboard for moving rocks. Stroi.i dor.mash. 7 no.2:20 F '62. (MIRA 15:5)

(Bulldozers)

ARTAMONOVSKIY, O.Yu.; MUZGIN, S.S.

Linear stability of underground bulldozers. Trudy Inst.gor.dela AN Kazakh.SSR 9:163-170 '62. (MIRA 15:8)
(Bulldozers)

MUZGIN, S.S.

Determining the parameters of an underground excavator. Trudy Inst. gor. dela AN Kazakh.SSR 12:47-55 '63. (MIRA 17:9)

MUZGIN, S.S.; GEORGIYEV, Yu.F.; YUPATOV, E.V.

Testing the EP-1 underground excavator in the Dzhezkazgan Mine. Trudy Inst. gor. dela AN Kazakh. SSSR 10:50-63 '63. (MIRA 16:8)

(Dzhezkazgan District--Excavating machinery--Testing)

MUZGIN, S.S.; GEORGIYEV, Yu.F.; YUPATOV, E.V.

Study of telescopic operating equipment of underground excavators. Trudy Inst. gor. dela AN Kazakh. SSR 11:48-57 '63. (MIRA 16:8)

(Excavating machinery)

KUNTUKOV, Yu.G.; MUZGIN, S.S.

Changes in the true rate of boring dependent on the depth of the boreholes in boring with a perforator with an independent rotation of the rod bores. Izv. AN Kazakh. SSR. Ser.tekh. i khim.nauk no.3: 65-68 '64. (MIRA 17:2)

[illegible], S.S.; ARTAMONOV, [illegible], [illegible] Yu., [illegible]YEV, Yu.F.; YUPATOV, F.V.
[illegible]L', [illegible]A.

Investigating an underground [illegible]-loader at the Dzhezkazgan Mine. Trudy Inst. gor. dela AN Kazakh. SSR 13:[illegible]-114 '64. (MIRA 17:7)

ARTAMONOVSKIY, O.Yu., kand.tekhn.nauk; MUZGIN, S.S., kand.tekhn.nauk

Effect of a tractor suspension system on the precision control of a bulldozer blade. Stroi. i dor. mash. 9 no.12:9-11 D '64.
(MIRA 18:3)

YAMPOL'SKIY, E.M., inzh.; MACHUL'SKIY, F.F., inzh.; MUZGIN, S.S., kand. tekhn. nauk

Using self-propelled equipment in mines of the Novomoskovsk Gypsum Combine. Gor. zhur. no.4:6-10 Ap '65. (MIRA 18:5)

1. Novomoskovskiy gipsovyy kombinat (for Yampol'skiy, Machul'skiy).
2. Institut gornogo dela AN Kazakhskoy SSR (for Muzgin).

MUZGIN, S.S.; SHOL', O.A.

Investigating feeder cable equipment of self-propelled mining machines. Trudy Inst. gor. dela AN Kazakh. SSR 17:93-101 '65.
(MIRA 18:9)

MUZGIN, S.S.; KUNTUKOV, Yu.G.; DAVYDOV, [illegible].B.

Efficiency of the [illegible] mechanisms [illegible] the [illegible]ing [illegible] in the Dzhezkazgan mine. Trudy Inst. gor. dela AN Kazakh. SSR 17:55-58 '65.

[illegible] 18:[illegible]

MUZGIN, S.S.

An efficient system in the power supplying of underground trackless conveying machines in long-distance deliveries. Trudy Inst. gor. dela AN Kazakh. SSR 17:106-112 '65. (MIRA 18:9)

MUZGIN, S.S.

Prospective type of drive of railless machines for the transportation of ore in underground workings. Trudy Inst. gor. dela AN Kazakh. SSR 13:85-92 '64. (MIRA 17:7)

UZGIN, S.S., CSc.

Results of the examination of self-propelled loaders and trackless conveying equipment at the Dzhezkazganskiy Enterprise. Rudy i met. no.7/8:265-270 Jl-Ag '64 (MIRA 17:8)

1. Institute of Mining, Academy of Sciences, Alma-Ata, U.S.S.R.

MUZGIN, V.N.; ZOLOTAVIN, V.L.; GAVRILOV, F.F.; BALAYEV, V.N.

Spectral analysis of vanadium by the vaporization method. Zav. lab. 30 no.6:697-699 '64 (MIRA 17:8)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

PUZAKO, V.D.; MUZGIN, V.N.; VINOGRADOV, G.K.

Settling of kaolin suspensions under the effect of a flocculating agent. Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.3:509-511 '61. (MIRA 14:10)

1. Ural'skiy politekhnicheskiy institut imeni Kirova, kafedra radiokhimii.
(Kaolin)

ZHUKOV, A.I.; MUZGIN, V.N.

Sorption of hydrolyzed ions of the elements of the groups VII and VIII by cation-exchanging resins. Zhur.neorg.khim. 7 no.7:1730-1735 Jl '62. (MIRA 16:3)

1. Ural'skiy politekhnicheskiy institut.
(Sorption) (Ion exchange resins)

MUZGIN, V.N.; ZOLOTAVIN, V.L.; GAVRILOV, F.F.

Chemical-spectral method for determining impurities in vanadium.
Zhur. anal. khim. 19 no. 1:111-116 '64. (MIRA 17:5)

1. Ural'skiy politekhnicheskiy institut, Sverdlovsk.

L 6457-66 EWT(1)/ETC/EWG(m)/T/EWA(g) IJP(c) AT
ACCESSION NR: AP5019853 UR/0181/65/007/008/2379/2382

AUTHOR: Mushdaba, V. M.; Parfen'yev, R. V.; Shalyt, S. S.

TITLE: Magnetophonon oscillation of the thermoelectric power in n-InSb in a longitudinal magnetic field

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2379-2382

TOPIC TAGS: thermoelectric power, phonon, phonon interaction, indium compound, magnetoresistance, electron mobility

ABSTRACT: This is a continuation of earlier work by the authors (FTT v. 6, 3193, 1964; ZhETF v. 47, 444, 1964) dealing with magnetophonon resonance in the thermoelectric power and magnetoresistance of n-InSb. The present article contains additional experimental results, showing how the magnetophonon resonance manifests itself in samples with various electron densities and mobilities, and covering a wider range of temperatures (5.5×10^{13}--3.9×10^{17} cm^{-3}, 3.7×10^{4}--7×10^{5} $cm^2/v.sec$, 68--300K). Oscillations were observed in the dependence of the magnetic thermoelectric power on the field, due to the magnetophonon resonance, in agreement with the theoretical predictions of V. L. Gurevich and Yu. A. Firsov (ZhETF v. 40, 199, 1961). The oscillations have a maximum near 200K and decrease both at lower and at higher temperatures. They also decrease with decreasing mobility at a fixed

Card 1/2

L 6457-66
ACCESSION NR: AP5019853

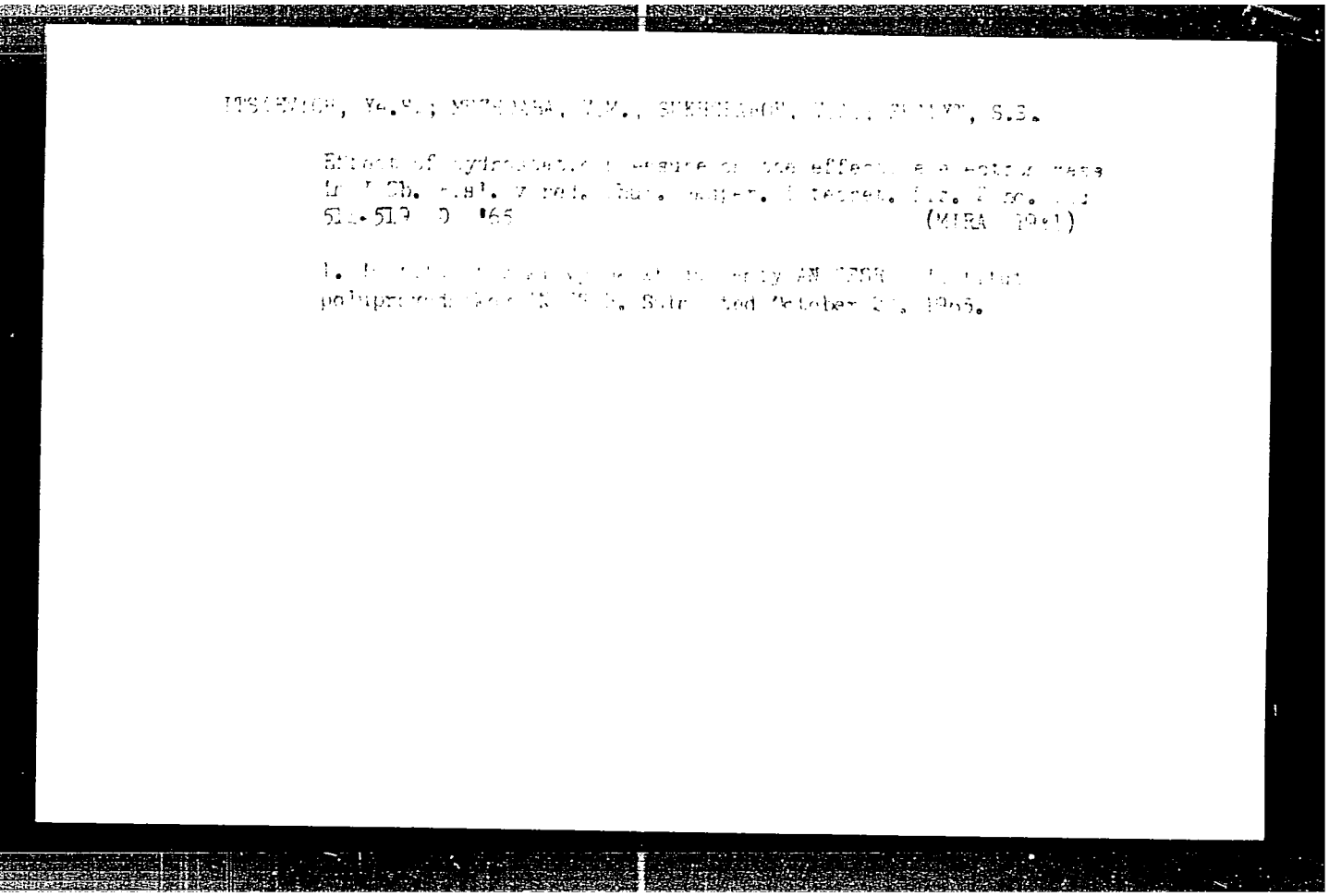
temperature. The concentration has a rather complex effect on the thermoelectric power. Orig. art. has: 4 figures, 2 formulas, and 1 table.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 26Feb65 ENCL: 00 SUB CODE: NP, EM

NR REF SOV: 007 OTHER: 000

Card 2/2



MUZHANOV, A.A., inzhener.

Quality control in assembling trucks. Elek.i tepl.tiaga no.8:32-34 Ag '57. (MLRA 10:8)

(Car wheels)

S/020/62/143/001/011/030
B104/B108

26.2317

AUTHORS: Arifov, U. A., Academician AS Uzbekskaya SSR, Gurich, D. D., Mirrakhimova, Kh., and Muzhavirov, S. Z.

TITLE: Investigation of secondary processes caused by fast neutral atoms of alkali metals

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 1, 1962, 69-71

TEXT: The experimental arrangement consisted of a source of fast neutral atoms and a semispherical collector (85 mm diameter) with a Ta target (10.10 mm) in its center. The working vacuum was $5 \cdot 10^{-7}$ mm Hg. The fast neutral atoms were obtained by resonance charge exchange of Na^+ ions in an Na vapor jet perpendicular to the Na^+ beam. The flux of the primary ions was measured before and after resonance charge exchange. The flux of neutral atoms was determined from this difference. According to the results, the secondary emission during interaction of fast neutral Na atoms with pure Ta targets and such covered with residual gas films is similar to the secondary emission induced by Na^+ ions interacting with Ta targets. Scattered positive ions with high energies are observed in both cases.

Card 1/2

Investigation of secondary ...

Under strictly equal conditions, the scattering coefficient of the neutral atoms is higher than that of the ions. There are 2 figures and 5 references: 4 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: H. W. Berry, J. Appl. Phys., 8, 1219 (1958).

ASSOCIATION: Institut yadernoy fiziki Akademii nauk UzSSR (Institute of Nuclear Physics of the Academy of Sciences Uzbekskaya SSR)

SUBMITTED: June 17, 1961

Card 2/2